

**BIOLOGICALLY ACTIVE PEPTIDES COMPRISING  
ISOLEUCYL-VALYL-THREONYL-ASPARAGINYL-THREONYL-THREONINE  
(IVTNTT)**

**CROSS-REFERENCE TO  
RELATED APPLICATIONS:**

This Application claims the benefit  
of provisional application Serial No.  
60/523,837 filed on 19 November, 2003,  
under 35 U.S.C. § 119(E)  
(specifically incorporated herein by  
reference in its entirety)

Background of the Invention

Field of the Invention

The present invention is related to short peptides and the use thereof. In particular, the present invention is related to short peptides with biological activities.

Description of the Related Art

Peptides are known in the art for treatment of diseases and as pharmaceutical compositions. For example, U.S. Patent No. 6,191,113 discloses a peptide that has inhibitory activity for the growth of smooth muscle cells and is therefore useful for preventing and treating pathological conditions associated with growth of smooth muscle cells such as arteriosclerosis, restenosis after angioplasty, luminal stenosis after grafting blood vessel and smooth muscle sarcoma. U.S. 6,184,208 discloses another peptide that is found to modulate physiological processes such as weight gain activity of the epithelial growth zone and hair growth. Furthermore, PCT publication no. WO 03/006492 and U.S. Patent Application No. 10/237,405 suggested that certain peptides and their pharmaceutical compositions are biologically active and capable of modulating immune responses.

It is therefore an object of the present invention to provide a short peptide or peptides that have biological activity.

Summary of the Invention

One aspect of the present invention relates to the hexapeptide CMS017, Isoleucyl-valyl-threonyl-asparaginyl-threonyl-threonine (IVTNTT), which has been found to contain biological activity. For testing purposes, the peptide L-Isoleucyl-L-valyl-L-threonyl-L-